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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/663,989

09/18/2000

Robert Charles Susil

55106 (71699)

4542

21874

7590

03/26/2003

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EXAMINER

SHAH, DEVAANG

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/663,989

Applicant(s)

SUSIL ET AL.

Examiner

Devaang Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 16-18 and 40-42 is/are rejected.
- 7) ☒ Claim(s) 4-15 and 19-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "114" and "115" have both been used to designate the image plane. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 214, p1, p2, and p3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
 - on page 1, line 9: "of the invention of the invention" should be changed to "of the invention."
 - on page 1, line 12: "fidicuial" should be changed to "fiducial."
 - on page 3, line 19: "desirable have" should be changed to "desirable to have"
 - on page 8, line 18: "like, a" should be changed to "like, and a"

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Appropriate correction is required.

Claim Objections

4. Claims 4-15 and 19-39 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot be dependent on another multiple dependent claim, and a dependent claim cannot be dependent on a multiple dependent claim that is dependent on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 16-18, and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,318,025 to Dumoulin et al. Dumoulin et al. disclose a tracking system to monitor the position and orientation of a device such as a catheter by using magnetic resonance detection. The magnetic resonance scanner used is capable of providing cross-sectional images.

As shown in figures 2a and 2b, the flexible device contains intermediate sensors (200b-200n) and a sensor proximate the distal tip (200a). The sensors are RF coils that detect MR signals that are generated in response to a controlled three-dimensional

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magnetic field generated by a set of magnetic field gradient coils. Signals detected by the sensors are transmitted to the system through conductors (columns 3-6).

Processing and calculating means provide the identifiable points (positions) for all of the coils (200a-200n), and determine the unique orientation of the device within its range of motion from the calculated positions. The results are displayed as an image representing the device's position and orientation (column 6, lines 44-68; column 7, lines 1-2). As shown in figure 1, the operator uses image display (180) to manipulate the medical instrument.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 5,445,151 to Darrow et al.

U.S. Patent No. 6,304,769 B1 to Arenson et al.

U.S. Patent No. 6,379,302 B1 to Kessman et al.

U.S. Patent No. 6,381,485 B1 to Hunter et al.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devaang Shah whose telephone number is 703-306-0333. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703 308-3256. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-305-3590 for regular communications and 703-308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

DS *D.S*
June 14, 2002